
CNT 5008 – Fall 2020 - Homework 2

Due: November 6, 2020

Instructions:

- Submit your answers in the form of a single document file
- Remember that the homework is **individual** work.
- Notice that points add up to 17, with 14 + 3 bonus points

Problem 1 (3 points) – Setting up your computer for RAW TCP.

Problems 2 and 3 require you to do raw TCP connection. You can do this in several ways, here are several:

- Use Linux, and install telnet if not coming with it by default.
- Use Linux subsystem for Windows, install Ubuntu, and then telnet.
- Use Telnet in Windows (it is part of the system but you need to install it separately)
- Use the raw mode of the program Putty in Windows.
- Raw sockets in python
- Raw sockets in C

Research these options and configure your computer such that you can achieve Problems 2 and 3. Describe your research, the configuration choices you made and possible challenges you encountered.

Problem 2 (7 points):

Access the UCF computer science web site by directly using the HTTP protocol directly entered into one of the options above. See Slide 33 in the application layer powerpoint slides. Use other resources in the book and internet as needed.

Log the sessions and attach it to your answer. Describe any problem you had and any research you had to do.

Problem 3 (7 points):

Research and find an SMTP server you can access. Due to spam and security concerns, there are less number of freely available SMTP servers than they used to be. Please google “smtp server for testing”. Alternatively, you can use something like Papercut (<https://github.com/ChangemakerStudios/Papercut-SMTP>) or mailtrap / sendria (<https://github.com/msztolcman/sendria>).

Send yourself an email by directly using the SMTP protocol. See Slide 50 in the application layer powerpoint slides. Use other resources in the book and internet as needed. Log the sessions and attach it to your answer. Describe any problem you had and any research you had to do.